

# The Digital Technologies Framework (DTF)

## An Update (Panel Session)



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### INTRODUCTION

The Information and Communications Technology (ICT) Taskforce Report of 2003 stated that the “second biggest constraint to growth of the ICT sector is the supply of appropriately educated graduates” and recommended that; “The ICT sector, secondary schools and tertiary institutions should be more strategic in aligning course content and graduate output with industry requirements”.

The stated goal of the Ministry of Education (MOE) Digital Technologies Framework (DTF) project is to encourage more students to leave secondary school equipped with skills, knowledge and competencies in digital technologies that are appropriate for tertiary institutions and employers’.

The purpose of this panel session, within the AUT IT Symposium, was to update participants on the progress of the DTF project.

### THE DIGITAL TECHNOLOGIES FRAMEWORK

#### Background

The DTF is the result of a programme of work led by HiGrowth and the MoE that built on the earlier work of the Fluency in IT (FIT) NZ project. The MoE entered into a contract with Cognition Consulting Limited (CCL) and Wintec in August 2007 to implement the DTF, starting with a foundation phase involving a group of 15 lead schools.

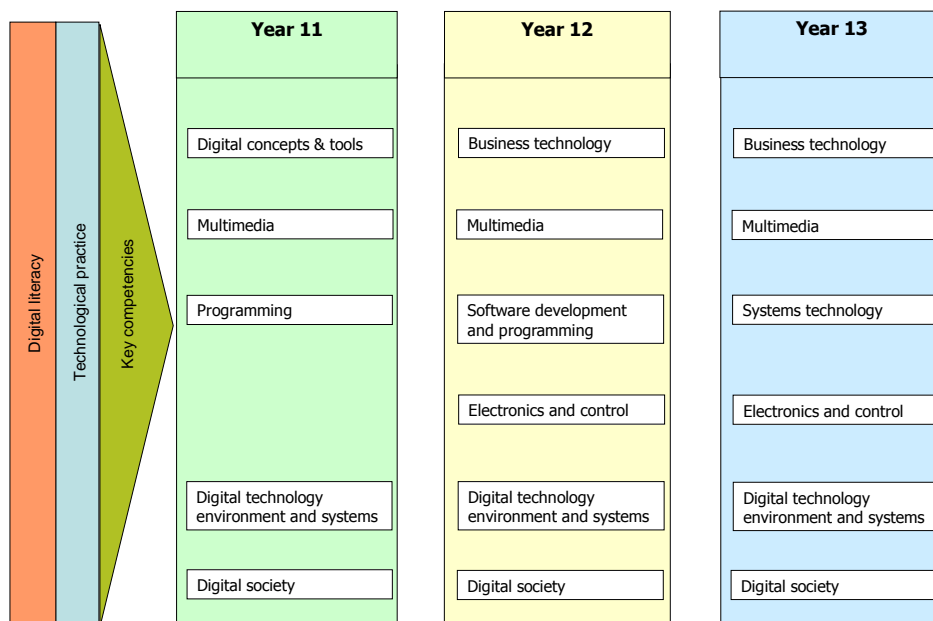
#### Definition

The DTF is a planning environment which provides context (learning experiences), coherence and relevance (content) to a diverse group of technologies through a series of modules of learning for years 11 to 13.

It is embedded within the NZ Technology curriculum learning area. It contains a series of modules which currently include:

- Digital concepts and tools
- Business technology
- Multimedia
- Programming
- Software development and programming
- Systems technology
- Electronics and control
- Digital technology environment and systems
- Digital society

Within the DTF are clearly defined pathways for students and teachers to follow (Refer figure 1).



**Figure 1** DTF modules

### Goals

- The DTF will provide a flexible structure and a more coherent approach to the teaching and learning of digital technologies in senior secondary schools. It has the potential to strengthen and widen the appeal of digital technologies.
- The DTF will become part of a cycle of learning and work which allows the needs of not only the ICT industry but other workplace settings to be met through a highly skilled and literate workforce.
- The DTF acknowledges and helps to ensure delivery of the key competencies and values at the core of the new curriculum. The modular approach emphasises the importance of alignment and coherency across schools in the delivery and content of these modules. It also provides for consistency of programme structure and an adherence to key areas of knowledge within modules, while providing flexibility through a choice of learning experiences and assessment options. The DTF is designed to ensure that it is flexible and adaptable to the changing technological needs of education and society.

### Proposed Implementation

The Implementation of the DTF is in two phases. The foundation phase is due for completion by June 2008 and consists of:

- Invited lead group of schools working together with facilitators to trial and develop materials using the framework to plan
- A national advisory group and a project governance group established and functioning
- Further development of the framework, teaching and professional development resources, a website and guidebook
- Support from tertiary and industry

The implementation phase is currently planned to be rolled out over a two year period and will include:

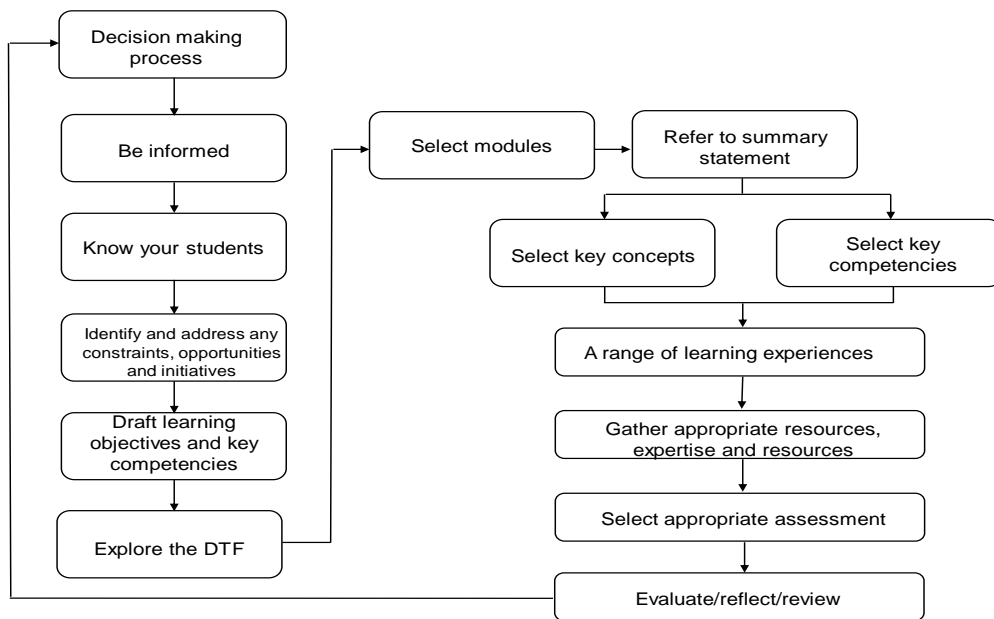
- Working with a wider group of schools across six regions (based on school support services regions)
- Further refining and developing materials
- Developing a regional advisory network to support ongoing implementation and sustainability of the framework across these regions and as a model for wider implementation in 2009/2010

### Lead Schools Group

The schools currently participating in the foundation phase of the DTF project cover four main regions of Auckland, Wellington, Waikato and Christchurch. Other regions include Gisborne, Hawkes Bay and Nelson. These schools, chosen because of their established experience in the teaching of digital technologies, will trial and share material developed for the DTF project, including module plans, assessments and samples of student work.

## DTF Planning Process

Figure 2 illustrates the DTF planning process that is envisaged will maximise the potential of the framework to meet the needs of a range of students.



**Figure 2** DTF Planning Process

## CONCLUSION

The digital technologies framework will provide senior secondary school students with clearly defined pathways to further learning and access to an unparalleled range of workplace opportunities as New Zealand moves to a smarter, more productive digital future.

It also provides a wonderful opportunity for strengthening the links between schools and tertiary and industry representatives. Finally, the digital technologies framework provides the ICT sector, secondary schools and tertiary institutions with a strategy to align course content and graduate output with industry requirements, as recommended in the (ICT) Taskforce Report of 2003.

## ACKNOWLEDGEMENTS

The DTF team thanks Associate Professor Tony Clear, AUT, for providing an opportunity to update Auckland secondary school teachers on progress with the MoE funded Digital Technologies Framework project.

## REFERENCES

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